

ASSISTANCE TO IRAQ'S BEEKEEPING SECTOR

STATUS OF ACTIVITIES

December 10, 2005

I. Introduction

Beekeeping was once an important economic activity in Iraq, but over the last 20 years the beekeeping sector has been damaged through a combination of widespread violence and population movement in the northern part of the country, and the introduction of the parasitic *varroa* mite from outside of the country. However, there is a great demand for honey in Iraq, and premium prices are being paid for the imported product. Iraqis much prefer locally-produced honey, which is purchased in the comb. There is a great potential domestic market for high-priced honey, which is once again being produced by Iraqi farmers.

ARDI support for revitalizing the Iraqi beekeeping sector has focused on three main areas:

- Support for community beekeeping projects
- Support for the formation of regional and national-level beekeepers associations
- Support to the Ministry of Agriculture's research and extension facilities, community-based groups, and the private sector

This report will discuss ARDI's activities in these areas, which include direct grants, provision of materials, and technical assistance.

II. Community Beekeeping Projects

ARDI is working with individual beekeepers to introduce modern beekeeping methods and equipment to increase the production of honey and beekeepers' income. ARDI has worked directly with a total of 316 beekeepers in eight villages in the governorates of Sulaymaniyah, Ninewa, Tameem and Diyala. These beekeepers include 88 widows, 77 handicapped persons, and 92 poor families that have shown an interest in and ability to set up and maintain an apiary for the production of honey. Fifty-nine existing beekeepers are also participating in the program.

Through grants, ARDI is providing inputs for the beekeepers including hives, colonies, modern beekeeping equipment and tools, and medicine. The grants also include a comprehensive training program to teach the beekeepers modern methods

for beekeeping. During the training course, the beekeepers learn how to set up and maintain an apiary according to scientific methods and how to produce honey and other commercial products, including royal jelly, bee venom, bee wax, pollens and propolis. After the initial ARDI grants are completed, the beekeepers receive continued assistance from technical teams that include government extension agents and bee experts from local NGOs. These technical assistance teams hold periodic field demonstrations and field visits to answer questions and address concerns of the new beekeepers.

The ARDI community beekeeping projects directly benefit the participating beekeepers, who realize an immediate increase in their income from the sale of honey and other commercial products. Each participating beekeeper receives two hives, which together produce approximately 45 kilograms of honey per season. The honey is sold on the market at \$10 per kilogram, representing \$450 in additional income for each beekeeper per season. The total additional income of the participating beekeepers from honey sales is \$142,200 in the first season.



Beekeepers receive modern beehives and other beekeeping equipment

The ARDI community beekeeping projects have an impact beyond the direct participants in the program. The technical assistance offered by government extension agents and bee experts from local NGOs, including the training course and the field days, are open to area beekeepers who wish to learn more about modern beekeeping techniques and make their own investment in modern beekeeping equipment. The grant recipients are also making additional investments to increase their honey production; in Sulaymaniyah last year, MOA/ARDI distributed a total of 182 hives and accompanying inputs to beekeepers. This season, the beekeepers there have a total of 567 beehives. These hives can produce a total of 12,750 kg of honey, which represents \$127,500 in additional income for these beekeepers from honey sales this season.

The other objective of the ARDI community beekeeping projects is to support the efforts of the Bee Department at the Ministry of Agriculture to update and review the current MOA recommendations for beekeeping, and develop educational materials for dissemination to beekeepers. These materials include an activities calendar, which describes how and when beekeeping activities or procedures should be performed during each season, as well as identifying common problems and possible solutions.

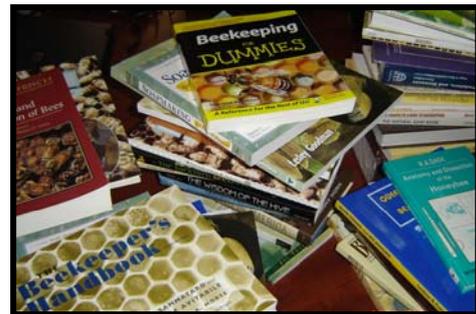
Community Beekeeping Projects Direct Beneficiaries				
Widows	Poor Families	Handicapped Persons	Existing Beekeepers	Total
88	92	77	59	316

Progress of Community Beekeeping Projects by Governorate	
Sulaymaniyah	Projects in 2 villages are 100% complete
	Projects in 2 villages are 50% complete
Ninewa	Project in 1 village is 20% complete
Tameem	Projects in 2 villages are 50% complete
Diyala	Project in 1 village is 50% complete

III. Support to the Ministry of Agriculture, community-based groups, and the private sector

To complement the assistance to individual beekeepers, ARDI is working with the Iraqi government, community-based groups and private sector entities that work in the beekeeping sector. ARDI has provided funding for the following projects:

- The Ministry of Agriculture in Baghdad and the Ministries of Agriculture and Irrigation in Erbil and Sulaymaniyah have extension offices that conduct research and provide direct assistance to beekeepers. An ARDI grant provided funding for the renovation of the Ministry of Agriculture Research and Extension facility in Rashidia, including a lecture hall, educational materials, a library of basic references on beekeeping and an audiovisual center for education. In addition, the grant will provide two laboratories: a small educational laboratory and a research laboratory for diagnosis and treatment of bee pests and diseases. Approximately 3,000 beekeepers will benefit from the facility, the renovation of which is approximately 80% completed.



ARDI provided educational materials for government extension offices, including the beekeeping books pictured here

- ARDI has established a model apiary at the Ministry of Agriculture apiary in Kerbala, which will produce and rear queen bees for distribution to beekeepers throughout Iraq. Years of constant inbreeding of bee colonies in Iraq have resulted in populations of bees demonstrating poor productivity and other undesirable characteristics. The model apiary will produce virgin queen bees from selected queens, which will be distributed to private beekeepers throughout Iraq. The virgin queen bees will mate with local donors (male drones) in order to produce stronger bees with increased productivity, tamer temperaments, and higher resistance to disease and pests. As a research facility, the model apiary will track the improved bees to compare details of hive performance in order to determine best strains for future planning. The facility will work closely with the Iraqi Beekeepers Association to ensure proper distribution of queens and

adequate training in management of these bees. The direct beneficiaries of this project are the 300 beekeepers who will receive the selected queens; in subsequent years, the facility will produce queens to satisfy demands from up to 6,000 beekeepers per year. This project is approximately 80% completed.

- ARDI will assist the Ministry of Agriculture, and potentially a private sector partner, to establish wax molding centers. The project will provide at least two high-capacity wax melting and processing machines to produce honeycomb foundation templates, enabling Iraqi beekeepers to sterilize wax (to prevent spread of diseases) and use preformed foundations required for modern hives. The project includes technical assistance to mount the machines and operation and maintenance training. The project, which is currently under development, will benefit approximately 6,000 beekeepers.
- ARDI provided funding for the construction of a Beekeeping Training Facility managed by the Kurdistan Bee Professionals Association. The facility has been equipped with 30 beehives used to conduct training courses for local beekeepers. The Association uses the school to disseminate educational information on improved beekeeping practices. Local universities, agriculture colleges and the Ministry of Agriculture will also use the training facility to conduct research and develop new beekeeping methods. The training facility benefits the over 1,100 members of the Kurdistan Bee Professionals Association, in addition to other beekeepers who will benefit from research and development. This project is 100% completed.
- One of the major constraints in Iraq's beekeeping sector is the lack of modern beekeeping equipment, including modern hives. Modern hives are more productive than the hives traditionally used in Iraq, but they must be imported into the country from Iran, Turkey or Italy. To increase the availability of domestically-produced, modern beekeeping equipment in Iraq, ARDI sponsored a course to train carpenters to produce modern beehives and other equipment. Twelve carpenters from Erbil, Dahuk, Sulaymaniyah, Tameem and Ninewah attended the course and are now producing modern beehives, providing a source of less expensive beekeeping equipment for Iraqi beekeepers.



A domestic source of modern beehives will help Iraqi beekeepers increase their production of honey

IV. Regional and National Beekeepers Associations

In addition to providing assistance grants, ARDI has sponsored the formation of local beekeeping associations and hosted national-level meetings and events to encourage the formation of a national beekeeping organization. ARDI has funded various meetings for the formation of beekeeping associations in Tameem, Dahuk, Ninewa and Erbil. Three national conferences/workshops have been held, attended by representatives from the Ministry of Agriculture and ten governorates from

throughout Iraq. Recently, the Beekeeping Associations of Erbil and Dahuk elected executive boards. The total membership of the associations is nearly 3,000: 200 members in the Dahuk Association, 450 in Erbil, 1,535 in Sulaymaniyah, and approximately 750 in the Iraqi Beekeeping Association.

A decision has been made by the regional beekeeping associations to establish the Iraqi Union for Beekeepers Associations. Early next year, the regional associations will meet to discuss the next steps for establishing the union.

These regional and national beekeeping associations will serve to improve the beekeeping sector in Iraq by providing assistance to individual beekeepers, including the dissemination of up-to-date information about modern beekeeping technology. The regional associations will represent the interests of local beekeepers to the national beekeeping association and to government agencies and international donors. The associations will also help beekeepers address common problems and implement solutions that will increase production and sales of Iraqi honey. For example, the associations have been working with beekeepers to introduce better packaging and labeling to make their product more attractive to the domestic market, and in preparation for potential future export.



Honey products for sale at the National Beekeeping Trade Fair. Marketing of Iraqi honey, including labeling, has improved with assistance from regional beekeeping associations.

Honey producers exhibited this improved marketing at the National Beekeeping Trade Fair, held September 2005. This fair, which was sponsored by ARDI, brought together beekeepers to promote honey production and enhance the Iraqi beekeeping sector on a national level. The beekeepers, who were from fourteen governorates (Sulaymaniyah, Baghdad, Basrah, Kerbala, Ninewa, Erbil, Najaf, Qadissiya, Wassit, Anbar, Tameem, Diyala, Babylon and Dahuk) exhibited and sold their honey and other commercial products, including medicinal products, food, and beekeeping equipment.